ABSTRACT OF THE DISCLOSURE

An MTIE test signal generating apparatus generates a predetermined MTIE test signal. An MTIE measuring unit includes a low-pass measuring filter having a predetermined high-cut characteristic. A cycle-amplitude setting portion sets a cycle corresponding to an observation time of each of desired plural specific points for a predetermined MTIE characteristic and an amplitude corresponding to a difference in the MTIE value between adjacent specific points. Plural signal generating portions generate plural signals each having the cycle and the amplitude having repetitive waveforms and then outputting to each of the desired plural specific points. A holding time setting portion sets a holding time for holding the upper and lower limit values of the repetitive waveforms over the predetermined time so that a signal cycle having at least the shortest cycle of the plural signals is longer than a predetermined time corresponding to the predetermined high-cut characteristic of the low-pass measuring filter.